

Notice of Allowability

Application No.

10/706,905

Examiner

Antonio A Caschera

Applicant(s)

NISHIDA ET AL.

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to originally filed application, 11/14/2003.
2. ☒ The allowed claim(s) is/are 1-4.
3. ☒ The drawings filed on 12 April 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 2/13/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in the pending application.

Allowable Subject Matter

2. Claims 1-4 are allowed.

The following is an examiner's statement of reasons for allowance:

In reference to claim 1, the prior art of record (Sasaki et al. (U.S. Patent 4,682,216), Matsuo (U.S. Patent 5,838,333), Kuwata et al. (U.S. Patent 6,404,509), Tanioka et al. (U.S. Patent 6,404,914) and Tsuda et al. (U.S. Pub 2002/0085249)) does not explicitly disclose superimposing means for superimposing a color signal of at least one color out of a set of binarized color signals on another color signal to convert the signals to a superimposed color signal, performed in the exact order as disclosed in claim 1 in combination with the further limitations of claim 1. In particular, the prior art of record does not explicitly disclose color converting to output at least 4 color signals, gamma correcting the 4 color signals, binarizing the 4 color signals and then superimposing at least one of the signals with another of the signals in combination with the further limitations of performing a logical operation and separation means upon the superimposed signals.

In reference to claims 2-4, claims 2-4 are also deemed allowable because they claim dependency upon allowable claim 1.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

References Cited

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- a. Sasaki et al. (U.S. Patent 4,682,216)
 - Sasaki et al. discloses a color image picture forming process which represents the color black using a combination of three other colorants.
- b. Matsuo (U.S. Patent 5,838,333)
 - Matsuo discloses an image processing device and method converting image data from one color space to another utilizing a PDL file generated by a host processor.
- c. Kuwata et al. (U.S. Patent 6,404,509)
 - Kuwata et al. discloses a method and system for correcting a deviation in color balance in an image output device.
- d. Tanioka et al. (U.S. Patent 6,404,914)
 - Tanioka et al. discloses an image processing apparatus including binarization units and under color removal processing.
- e. Tsuda et al. (U.S. Pub 2002/0085249)

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- Tsuda et al. discloses a color image forming device and method of forming a color image that can prevent the occurrence of pile height and low-contrast moirés occurring in low-frequency image areas.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Antonio Caschera whose telephone number is (703) 305-1391. The examiner can normally be reached Monday-Thursday and alternate Fridays between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached at (703)-308-6829.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

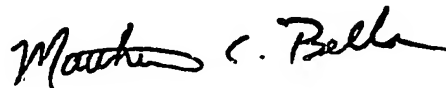
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

aac

1/7/05

A handwritten signature in black ink, appearing to read "Matthew C. Bella". The signature is fluid and cursive, with the first name "Matthew" being more prominent than the last name "Bella".

MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600